

<p>93-351577/44 102 HUFR 92.04.11 HUELS TROISDORF AG *WO 9321126-A1 92.10.31 92DE-4236855 (+92DE-4212229) (93.10.28) C04B 28/00, 28/26 (C04B 14:10, 14:18, 18:08, 18:14, 28/00, 22:00, 18:10) (C04B 14:18, 28/26, C06B 14:10) Low density inorganic moulding prodn. - by wetting microporous filler material with liq., water contg. wetting agent, mixing with stone forming component, pouring into mould and thermally hardening (Ger) C93-156006 N(AT AU BB BG BR CA CH CZ DE DK ES FI GB HU JP KP KR KZ LK LU MG MN MW NL NO NZ PL PT RO RU SD SE SK UA US VN) R(AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE Addnl. Data: HAACK T, RANDEL P WILLICH DAEMMSTOFFE & ISOLIERSYSTEME GMB (WILL-) 93.04.13 93WO-EP00900 93-328871/42</p>	<p>L(2-A4, 2-G1) USE/ADVANTAGE Making chimneys and chimney parts using steel tubular moulds. The moulding has a high temp. strength, good alternat- ing temp. strength, low thermal conductivity and has low shrinkage at high temperature.</p>
<p>Method of producing a light, mainly inorganic moulding with a density below 400 kg/m³ consists of wetting a microporous filler material of powder density below 150 kg/m³ with a liquid, water-containing wetting agent; mixing with a stone- forming component and optionally other solid components together with a liquid hardener so that the filler material retains its macrostructure; pouring into a mould; and press forming followed by removal and thermal hardening.</p>	<p>EMBODIMENTS The stone-forming component consists of: (1) a fine oxide mixture of amorphous SiO₂ and Al₂O₃; and/or (2) a glass-like, amorphous electrofilter ash; and/or (3) ground calcined bauxite; and/or (4) electrofilter ash from lignite coal fire power stations; and/or (5) undissolved, amorphous SiO₂, esp. from an amorphous, dispersed powder, dehydrated or hydrated silicic acid; and/or (6) meta kaolin. The hardener is an alkali silicate solution with 1.2-3 mol SiO₂ per mol K₂O and/or Na₂O and a density of 1.4-1.7 kg/dm³.</p>

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A surfactant and a turbidity agent may also be added to the mixture. The latter is pref. a vegetable ash such as rice shell ash. The filler material is pref. expanded vermiculite and/or pearlite.

The mixture is pressed in a mould to reduce the volume to 20-80, pref. 30-50% of the starting volume using a pressure of 1-4 bar.

The mould is preheated to 40-250, pref. 100-170°C and after pressing is removed from the mould within 3 min. It is then hardened at 40-300, pref. 100-200°C.
(19pp1678KGDwgNo0/1).

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